

**FINAL**

**CLEAN AIR ACT SECTION 112(r) INSPECTION REPORT**

***Western New York Energy, LLC***

***Medina, NY***

**GENERAL INFORMATION**

<b>Stationary Source</b>	<b>Western New York Energy, LLC</b>
<b>Date of Inspection</b>	November 17, 2009
<b>USEPA Inspector</b>	Ellen Banner – USEPA, REGION II (Edison, NJ) Francesco Maimone – USEPA, REGION II (Edison, NJ)
<b>Contract Auditor</b>	Neil Mulvey, Sullivan Group (Subcontractor)
<b>Description of Activities</b>	<ul style="list-style-type: none"><li>• Opening meeting with facility representative.</li><li>• Program audit.</li><li>• Closing meeting with facility representatives.</li></ul> Program audit consisted of the following activities: <ol style="list-style-type: none"><li>1. Document review.</li><li>2. Field verification.</li><li>3. Personnel interviews</li></ol>

**STATIONARY SOURCE INFORMATION**

<b>EPA Facility ID #</b>	1000 0020 0926
<b>Date of Latest Submission (used for RMP inspection)</b>	Receipt Date: December 26, 2007 (First Time)  Anniversary Date: December 20, 2012
<b>Facility Location</b>	4141 Bates Road Medina, NY 14103 Orleans County  Tel. (585) 798-9693
<b>Number of Employees</b>	RMP*Submit states 40 employees (per RMP registration). Facility management reported 45.

<b>Description of Surrounding Area</b>	Facility operations are conducted on approximately 20-acres of a total site estimated to be 140 acres. The facility is located in a rural area. Surrounding land use is primarily agricultural. The surrounding area includes light commercial and residential use. The nearest residential property is approximately 700-ft. from the facility property line.
<b>Participants</b>	<p>Participants included representatives from:</p> <p>Ellen Banner, USEPA – Region II, Edison, NJ  Francesco Maimone, USEPA – Region II, Edison, NJ  Neil Mulvey, USEPA Contractor  David Brick, Human Resource, Safety &amp; Environmental Manager – Western New York Energy  Ryan Carter, VP Operations, Western New York Energy*</p> <p>* Lead representative for Western New York Energy</p>

## REGISTRATION INFORMATION

<b>Process ID #</b>	73281 – Ethanol Manufacturing
<b>Program Level (as reported in RMP)</b>	Program 3
<b>Process Chemicals</b>	Anhydrous ammonia @ 97,200-lbs.
<b>NAICS Code</b>	325193 (Ethyl Alcohol Manufacturing)

<b>Process ID #</b>	73282 – Ethanol Manufacturing
<b>Program Level (as reported in RMP)</b>	Program 3
<b>Process Chemicals</b>	Flammable Mixture (Pentane/Isopentane/Butane/1-Butene/Isobutane) @ 314,160-lbs.
<b>NAICS Code</b>	325193 (Ethyl Alcohol Manufacturing)

## GENERAL COMMENTS

This new facility began operations in December 2007. The facility was built 'ground-up' from open space. The facility manufactures fuel grade ethanol from corn. The facility receives approximately 70,000 - 95,000-bushels/day (56-lbs./bushel) of corn as its primary raw material. Each delivery truck contains approximately 1,000-bushels. Approximately 2.87-lbs. of fuel grade ethanol is produced for each bushel of corn.

The production of fuel grade ethanol involves several major steps, including:

- Hammermills for grinding corn to course flour
- Slurry blender / cooking
- Sterilization
- Liquefaction
- Fermentation
- Distillation
- Dehydration
- Blending

The process involves two RMP regulated materials: National Fire Protection Association (NFPA) 4 flammable mixture (denaturant) and anhydrous ammonia. The denaturant is known as a natural gasoline which is a flammable mixture of pentane, isopentane, butane, isobutane and 1-butene. The denaturant is blended with the pure ethanol produced during the distillation process to meet DOT specifications for fuel grade ethanol. Denaturant is stored in a 165,000-gallon storage tank.

Anhydrous ammonia is used in the process for pH control. Anhydrous ammonia is stored in a 18,000-gals. bulk tank (typical maximum fill is 8,000-gals.). Anhydrous ammonia is delivered via tank truck and transferred to the bulk storage tank. The facility receives approximately one tank truck every 2.5 months. A tank truck typically contains approximately 20,000-lbs. of anhydrous ammonia. Ammonia is transferred from bulk storage to cooker vessels via tank pressure. While the process includes a liquid transfer pump, it is typically not used. The process utilizes approximately 0.3-lbs./min. of anhydrous ammonia. Although not yet used, ammonia can also be fed to the fermenters. The ammonia process includes an emergency shutdown system which can be manually activated from the main control center or via a switch located near the cook system. There are no ammonia monitors on-site. The registration quantity of 97,200-lbs. is based on 18,000-gals. @ 5.4-lbs./gals.

The facility operates 24/7, 365 days/year. The entire process is DCS controlled and allows for remote (i.e., off-site) monitoring and control of process conditions.

Operations personnel include:

- Director of Operations
- Plant Manager
- Shift Leaders (4)
- Operators (12)

A typical shift includes four people: a shift leader and three operators. The facility operates with two 12-hour shifts. Maintenance personnel include a Maintenance Manager and five Maintenance Technicians.

## **RMP DOCUMENTATION**

RMP documents are contained in various binders and folders, including:

- SOP Binder
- PSM Binder
- Individual folders

The facility prepared a “EPA Inspection Check List – 11/2009” for use during this inspection. This Check List provides a list of documents available for review for each of the RMP elements.

Facility management demonstrated a good understanding of the RMP requirements, RMP documentation, and program implementation.

### **Registration**

The facility submitted an RMP to the RMP Reporting Center on December 20, 2007. The facility registered two processes, an anhydrous ammonia and a National Fire Protection Association (NFPA) 4 flammable mixture, as Program Level 3 processes. As a NFPA 4 flammable mixture stored at atmospheric pressure, the denaturant tank is exempt from OSHA’s Process Safety Management, and consequently, the process qualifies as an EPA Program Level 2.

This first-time RMP submission included Mr. Gary Pokorski as the emergency contact person. Facility personnel indicated that Mr. Pokorski was employed by Western New York Energy until January 2008; the emergency contact information was not updated within the required one-month time frame, as required in 40 CFR 68.195(b).

The RMP registration information incorrectly contains the weight sum of five RMP-regulated flammable substances as components of the denaturant tank. Rather, the total weight of the denaturant tank, as an NFPA 4 flammable mixture, must be included in the RMP registration information, as discussed in 40 CFR 68.115 and 40 CFR 68.160(b)(7).

### **Management System [40 CFR 68.15]**

The facility management demonstrated a good understanding of their Risk Management Program, and had an organizational chart outlining the responsibilities of those involved in implementing the Risk Management Program.

### **Hazard Assessment [40 CFR 68.22 – 68.39]**

The facility used RMP Comp to determine distance-to-endpoint estimates for Worst Case (WCS) and Alternate Case (ACS) scenarios. Distance-to-endpoint estimates were performed for both the anhydrous ammonia and flammable mixture processes. Model parameters were appropriate for wind speed, stability class, and release temperatures. The facility conservatively chose the “rural” surface roughness classification when determining WCS and ACS distance-to-endpoint estimates. WCS and ACS descriptions indicated that the facility used current US Census data and the facility management’s knowledge of the surrounding area in order to determine public and environmental receptors.

The description of the WCS for the NFPA 4 flammable mixture indicated that the entire content of the denaturant tank was used to calculate the WCS distance-to-endpoint. However, the WCS RMP Comp model run did not incorporate the entire flammable component of the NFPA 4 flammable mixture when computing the WCS distance-to-endpoint, as required in 40 CFR 68.25(b)(1) and 40 CFR 68.25(f)(1). Consequently, the WCS distance-to-endpoint is underestimated for the NFPA 4 flammable mixture.

The description of the ACS for the flammable mixture indicated that the entire content of a tanker truck was used to calculate the ACS distance-to-endpoint. However, the ACS RMP Comp model run did not incorporate the entire flammable component of the NFPA 4 flammable mixture when computing the distance-to-endpoint. Consequently, the ACS distance-to-endpoint is underestimated for the NFPA 4 flammable mixture.

The threshold determination for flammable mixtures can be found in 40 CFR 68.115(b)(2). Additional guidance on determining distance-to-endpoint estimates for flammable mixtures can be found in Chapter 5 of the EPA “Risk Management Program Guidance for Offsite Consequence Analysis” document. This document can be found at: <http://www.epa.gov/oem/docs/chem/oca-chps.pdf>

Documentation used for determining population and environmental receptors within distance-to-endpoint estimates were not maintained with the facility’s Risk Management Program documents.

**Safety Information [40 CFR 68.48] / Process Safety Information (PSI) [40 CFR 68.65]**

The facility maintains extensive process safety information, including:

- MSDS for anhydrous ammonia and denaturant
- Block flow diagram (BFD)
- Piping and instrument diagrams (P&IDs)
- One-line diagrams / Electrical diagrams
- Grounding diagrams
- Electrical area classification plan
- Report on the design basis for relief systems (Report from ICM, Inc. – Relief System Design Basis for Western New York Energy, LLC, 50 MM GPY Ethanol Plant Project, October 29, 2007; includes specific case evaluations; followed API standards for calculating).
- Checklist evaluations of process design versus established codes, standards, and regulations, including:
  - 29 CFR 1910.111 (Storage and Handling of AA); completed 12/16/08
  - OSHA General Duty Clause Checklist for Acids and Caustics; completed 12/12/08
  - Checklist for Hazard Communication Program Audit; completed 12/11/08
  - Checklist for Emergency Response Action Plan Program Audit; completed 12/3/08
  - Checklist for Fire Prevention Program Audits; completed 12/5/08; includes checks on various fire suppression regulations (1910.38 – 39; 1910.157, .158, .159, .160, .162, .164, .252) as performed by outside contractors. Includes sprinkler systems and fire pump systems.
  - Checklist for Lock-out/Tag-out Program Audit; completed 12/22/08
  - Checklist for Hot Work Program Audit; completed 12/23/08
  - Checklist for PPE Program Audit; completed 12/4/08
- Extensive documentation on process equipment including specifications, safe operating limits, and detailed equipment drawings
- Description of safety systems

P&IDs (dated January 2007) are detailed showing all equipment, vessels, piping, valves, and instruments. Field verification of the ethanol tanks, anhydrous ammonia storage tank and slurry tank determined that the P&IDs are representative of actual equipment installation.



The following Program Level 3 Process Safety Information was not available for review for the anhydrous ammonia process:

- Mass balance
- Process chemistry
- An evaluation of the consequences of deviation

**Hazard Review [40 CFR 68.50] / Process Hazard Analysis (PHA) [40 CFR 68.67]**

Initial PHAs and/or Hazard Reviews, performed when the plant began operations in December 2007, were not available for review. As a Program Level 3 process, a PHA is required to be performed for the anhydrous ammonia process. As a Program Level 2 process, a Hazard Review must be performed for the NFPA 4 flammable mixture, although the facility may choose to perform a PHA instead.

Although initial PHAs and/or Hazard Reviews were not available for review, the inspectors were able to review multiple task hazard analyses – the first of which was conducted on April 17, 2008. The purpose of the task hazard analyses were to determine if the appropriate personal protective equipment (PPE) were being used for varying operations with associated hazards at the facility. Additional meetings involving plant personnel were held on 5/13/08, 7/14/08, 5/28/09 and 5/26/09. Multiple safety issues were covered including an advisory to employees to wear leather gloves, reminding employees to wear proper PPE when working with acids and wearing a face shield along with goggles in certain situations.

Avoiding back injuries, slip, trip and fall hazards were covered by the frequent meetings, as well as stored energy hazards. The issue concerning stored energy came from an employee concerned with the stored air in a hose after blow-out.

These meetings and safety analyses appear to be very useful and to involve a variety of plant personnel. However, PHAs required by EPA's RMP program are more of a structured process that focus on potential release scenarios or malfunctions, the failure of engineering controls and the consequence of their failure, facility specific siting issues and human factors. Instead of responding to employee concerns in a safety meeting forum, the PHA elicits many potential changes or modifications to the process, administrative controls and redundant systems that could prevent or mitigate a release. Hazard Reviews, required for Program 2 processes, have similar intent as PHAs.

There was not a listing of the employees involved in the meetings and not all action items were listed as resolved, although many were completed. PHAs and Hazard Reviews required by EPA's Risk Management Program are to be conducted at least every 5 years. The PHAs and their updates, as well as resolutions to recommendations, must be kept for the life of each process. Hazard Review documentation is recommended to be kept for the life of the process.

**Standard Operating Procedures (SOPs) [40 CFR 68.52] [40 CFR 68.69]**

Facility-wide, written checklist-type procedures exist for power outage, and for start-up following power outage.

**Ammonia Process:**

There were no SOPs for operation of the anhydrous ammonia storage tank or transfer of ammonia from storage to the end use points. Facility management explained that the vendor is responsible for transferring ammonia from the delivery tank truck to the bulk storage tank, thus indicating that SOPs were not applicable. Facility management explained that since the process was automated, written operating procedures were not required. As a Program Level 3 process, SOPs pertaining to the anhydrous ammonia process must be prepared and reviewed as often as necessary, and must be re-certified annually that they are current and accurate.

**NFPA 4 Flammable Mixture Process:**

Written procedures exist for “Product Storage and Transportation” addressing operations involving flammable materials. There were no written operating procedures, however, for the denaturant tank that address emergency operation or emergency shutdown.

**Training [40 CFR 68.54] [40 CFR 68.71]**

Facility personnel performed and completed a training program by ICM Inc., the designer and initial operator of the facility. ICM Inc. provided an extensive training program in order to familiarize Western New York Energy personnel with facility operations. This training program included two weeks training at another ethanol facility using the same technologies, and an on-site eight-week training and guidance program for Western New York Energy personnel. Although training on the ammonia and flammable mixture processes was performed and a list of operators during the training period is known, the facility did not retain appropriate initial training records for the anhydrous ammonia process, as required for Program 3 processes.

Additionally, there was no indication that employees have been consulted in determining the frequency of refresher training for each process.

**Maintenance [40 CFR 68.56] / Mechanical Integrity [40 CFR 68.73]**

The facility uses a “MPulse Maintenance Software” to schedule and document completed equipment inspections and tests.



Inspection and test documentation available for review included:

- pH probe regulating anhydrous ammonia feed; records include checking in-line pH probe against lab probe.
- Pressure Safety Valves (PSVs) - checked per monthly work order. Involves visual inspection to ensure vents are free of blockage (i.e., no snow/ice, obstructions); checked for signs of vent leakage, per written procedure. Reviewed records for June and July 2009.
- Visual inspection of fusible links on bulk flammable material storage tanks; performed as part of monthly visual inspections of bulk storage tanks; included in checklist; reviewed documentation for July and November 2009.
- Weekly Diesel Fire Pump Inspection; reviewed logbook of pump checks and performance.
- Weekly Fire Protection Inspection; reviewed records of inspections completed during week of 11/13/09. Included review of fire protection inspections in different areas of the plant.

There were no written procedures for the anhydrous ammonia process that describe how the facility handles deficiencies identified during an inspection and test. This is a requirement for Program Level 3 processes.

Additionally, there were no records or other confirmation, that the following inspections and/or tests have been performed or scheduled:

- Flow meter on anhydrous ammonia feed line to end use equipment. Facility management reported that inspections/tests on the flow meter are performed, but not documented.
- No established schedule for replacement of PSVs.
- No documentation of periodic checks of the anhydrous ammonia emergency shutdown valve (ESV).
- No documentation of inspections/tests of high level alarms on bulk flammable material storage tanks.
- No inspections/tests of the grounding/bonding system.

**Management of Change (MOC) [40 CFR 68.75] & Pre-Startup Review (PSR) [40 CFR 68.77]**

Management of Change and Pre-Startup Review are only applicable to Program Level 3 processes. Consequently, these procedures must be implemented for the anhydrous ammonia process, but are not required to be performed for the NFPA 4 flammable mixture process.

The facility has Management of Change procedures. Several required elements of Pre-Startup Review were performed prior to the transfer of operations from ICM to Western New York Energy, and during an eight-week onsite training period after the transfer of operations. For example, prior to the transfer of plant operations from ICM to Western New York Energy, ICM provided standard operating procedures and performed a seven to ten day testing period of equipment and construction, as certified in the "Certificate of Substantial Completion" document.

Although several Pre-Startup Review items were performed prior to startup, an initial Process Hazard Analysis (PHA) was not performed for the anhydrous ammonia process.

**Compliance Audits [40 CFR 68.58] [40 CFR 68.79]**

The facility has not performed any compliance audits. The facility began operations in December 2007, and consequently, is not required to perform a Compliance Audit for each process until December 2010.

**Incident Investigation [40 CFR 68.81] [40 CFR 68.81] / Five-Year Accident History [40 CFR 68.42]**

The facility did not have any catastrophes or near-misses at covered process equipment that would require the completion of incident investigation documentation for either process. Additionally, the facility did not have any accidental releases that resulted in on-site or off-site deaths, injuries, and property damage, or off-site evacuations, sheltering in place, or environmental damage.

**Employee Participation [40 CFR 68.83]**

Employee Participation is a Program Level 3 element, and consequently, is only required for the anhydrous ammonia process.

The facility has a written Employee Participation plan. Documentation confirmed employee involvement in the development and implementation of various RMP procedures, including SOP development, performance of inspections and tests, and incident investigations.

**Hot Work Permit [40 CFR 68.85]**

Hot Work Permit is a Program Level 3 element, and consequently, is only required for the anhydrous ammonia process.

The facility has a Hot Work Permit program for facility operations, and completes hot work permit documentation when hot work is performed on or near the covered processes.

**Contractor Safety [40 CFR 68.87] / Maintenance [40 CFR 68.56 (c)]**

The facility has a written contractor safety program. The written program includes procedures for performing contractor orientation prior to work on-site. The program uses a "Contractor Safety Program Audit" checklist to verify the contractor's safety and training programs and as a means to perform performance evaluations of the contractor when working on-site.

Records regarding the selection, orientation, and evaluation of three covered contractors were reviewed during the inspection.

**Emergency Response [40 CFR 68.90 – 68.95]**

The Western New York Energy facility has a written Emergency Response Plan (ERP) which details the actions to be taken in case of an emergency, notification procedures, and emergency medical treatment. The facility participates on the Local Emergency Response Committee (LEPC).

The facility is not a first responder and has trained with the Shelby Fire Department, the Medina Fire Department, and with a contractor-Williams Fire and Hazard Control, located in Houston, Texas. In addition, the facility has retained the services of an outside clean-up contractor, National Vacuum Corp, which is located approximately 45 minutes away from the facility.

The most recent joint training at the facility was held on November 5 – 7, 2009 and was well documented. Recommendations resulting from the training were: more frequent site visits by the local responders, making sure foam resources are adequate, and conducting an evaluation of the facility's hydro-chem capabilities. Hydro-chem allows a stream of dry-chemical extinguishing agent to be delivered to the point of a fire through a foam/water stream. The system has a greater reach than conventional systems.

The Emergency Response Plan is updated often. The plan was updated on 3/14/08, 10/22/08, 1/10/09 and 2/16/09.

**FACILITY TOUR**

A tour of process equipment was performed, including a field verification of process equipment and devices illustrated in piping and instrumentation diagrams. The piping and instrumentation diagrams accurately reflected process equipment and devices.

Housekeeping at the facility was noted to be excellent.

## FINDINGS

### Hazard Assessment [40 CFR 68.20 – 68.39]

#### NFPA 4 Flammable Mixture Process:

- The worst-case scenario distance-to-endpoint is underestimated because it was not computed for the entire flammable contents of the NFPA 4 denaturant tank. The entire contents of the denaturant tank is required to be incorporated in determining the worst-case scenario, as referenced in 40 CFR 68.25(b)(1) and 40 CFR 68.25(f)(1). **The facility must adequately determine the worst-case release scenario that is estimated to create the greatest distance-to-endpoint for a covered flammable substance(s), as required in 40 CFR 68.25(a)(2)(ii).**
- The alternate-case scenario distance-to-endpoint is underestimated because it was not computed for all flammable components of the regulated NFPA 4 flammable mixture. **The facility must adequately analyze at least one alternative release scenario to represent all flammable substances held in a covered process, as required in 40 CFR 68.28(a).**

#### NFPA 4 Flammable Mixture Process & Anhydrous Ammonia Process:

- Appropriate documentation used for determining population and environmental receptors within distance-to-endpoint estimates were not maintained with the Risk Management Program. **The facility must retain data used to estimate potentially affected populations and environmental receptors, as required in 40 CFR 68.39(e).**

### Process Safety Information (PSI) [40 CFR 68.65]

#### Anhydrous Ammonia Process:

- For the anhydrous ammonia process, PSI not available for review included mass and energy balance information, process chemistry information, and an evaluation of the consequences of deviation from normal operating ranges. **The facility must develop the required PSI for the anhydrous ammonia process, including mass and energy balance information (required for processes built after 6/21/99), information on process chemistry, and evaluation of the consequences of deviation, as required by 40 CFR 68.65(c)(1)(ii), (iv) and (d)(1)(vii).**

### Hazard Review [40 CFR 68.50] / Process Hazard Analysis (PHA) [40 CFR 68.67]

#### NFPA 4 Flammable Mixture Process:

- There was no evidence that an initial Hazard Review, or other equivalent method, was performed for the NFPA 4 flammable mixture process during the beginning of plant operations. **The facility must perform an initial Hazard Review for hazards associated with the NFPA 4 flammable mixture and its process and procedures, as required in 40 CFR 68.50(a).**

- There was no documentation that a Hazard Review was performed for the NFPA 4 flammable mixture process, and that all equipment in the flammable mixture process have been inspected and evaluated in accordance with applicable standards or rules as part of the Hazard Review. **The facility must perform a Hazard Review for the NFPA 4 flammable mixture using checklists developed by persons or organizations knowledgeable about the process and equipment, and must inspect and evaluate all process equipment in accordance with applicable standards or rules, as required in 40 CFR 68.50(b).**
- A Hazard Review for the NFPA 4 flammable mixture process containing results of the review has not been documented. **The facility must document results from a Hazard Review for the NFPA 4 flammable mixture, and ensure that problems identified are resolved in a timely manner, as required in 40 CFR 68.50(c).**

Anhydrous Ammonia Process:

- There was no evidence that an initial PHA was performed for the anhydrous ammonia process during the beginning of plant operations. **The facility must perform an initial PHA that has identified, evaluated, and controlled hazards involved in the anhydrous ammonia process, as required in 40 CFR 68.67(a).**
- A PHA for the anhydrous ammonia process has not been performed using the “What-If”, “Checklist”, “What-if/Checklist”, “Hazard and Operability Study”, “Failure Mode and Effects Analysis”, “Fault Tree Analysis”, or an “appropriate equivalent methodology”. **The facility must use an appropriate PHA format for the anhydrous ammonia process when conducting a PHA, as required in 40 CFR 68.67(b).**
- A PHA for the anhydrous ammonia process has not been performed that addresses process-specific hazards, potential incidents for catastrophic consequences, engineering and administrative controls, consequences of engineering and administrative control failure, source siting, human factors, and an evaluation of a range of the possible safety and health effects of failure of controls. **The facility must conduct a PHA for the anhydrous ammonia process which addresses these items, as required in 40 CFR 68.67(c).**
- A PHA for the anhydrous ammonia process has not been performed by a team with expertise in engineering and process operations for each process, with at least one employee who has knowledge specific to each process. **The facility must conduct a PHA for the anhydrous ammonia process using a team-based approach, as required in 40 CFR 68.67(d).**
- For the anhydrous ammonia process, a system has not been established that promptly addresses team findings and recommendations from the PHA team. **The facility must establish a system that promptly addresses team findings and recommendations for the anhydrous ammonia process, as required in 40 CFR 68.67(e).**

**Standard Operating Procedures (SOPs) [40 CFR 68.52] [40 CFR 68.69]**

NFPA 4 Flammable Mixture Process:

- There were no written operating procedures for the NFPA 4 flammable mixture processes addressing emergency operation or emergency shutdown. **The facility must develop written operating procedures for emergency operation and emergency shutdown of equipment handling regulated flammable materials, as required by 40 CFR 68.52(b)(4).**

Anhydrous Ammonia Process:

- There were no written operating procedures for the anhydrous ammonia equipment. Facility management explained that the vendor is responsible for transferring ammonia from the delivery tank truck to the bulk storage tank, therefore the facility did not need an SOP. There were also no SOPs for operation of the anhydrous ammonia storage tank or transfer of ammonia from storage to the end use points. Facility management explained that since the process was automated, written operating procedures were not required. **The facility must develop written operating procedures for normal start-up, emergency operation, shutdown, and emergency shutdown of anhydrous ammonia equipment and systems, as required by 40 CFR 68.69(a).**
- Written operating procedures were not reviewed / certified annually for the anhydrous ammonia process. **The facility must ensure that all written operating procedures related to the anhydrous ammonia process are reviewed / certified annually, as required by 40 CFR 68.69(c).**

**Training [40 CFR 68.71]**

Anhydrous Ammonia Process:

- There were no records indicating that each operator was trained in operating procedures for the anhydrous ammonia process. **The facility must ensure that appropriate records are created or retained for all initial and refresher training for the anhydrous ammonia process, as required by 40 CFR 68.71(c).**

NFPA 4 Flammable Mixture Process & Anhydrous Ammonia Process:

- There was no evidence that the owner or operator has consulted with employees in determining the appropriate frequency of refresher training for both processes. **The facility must consult with employees in determining the frequency of refresher training for the NFPA 4 flammable mixture process, as required in 40 CFR 68.54(b), and for the anhydrous ammonia process, as required in 40 CFR 68.71(b).**



**Maintenance [40 CFR 68.56] / Mechanical Integrity [40 CFR 68.73]**

NFPA 4 Flammable Mixture Process:

- Written procedures have not been fully established and implemented in order to maintain the on-going integrity of the NFPA 4 flammable mixture process equipment. **The facility must prepare and implement procedures to maintain the on-going mechanical integrity of the NFPA 4 flammable mixture process equipment, as required in 40 CFR 68.56(a).**
- Inspections and/or tests of NFPA 4 flammable mixture process equipment, including but not limited to testing of high level alarms on bulk flammable material storage tanks, and inspections/tests of the grounding/bonding system, have not been performed. **The facility must perform, or cause to be performed, inspections and tests on all applicable NFPA 4 flammable mixture process equipment. Inspection and testing procedures must follow recognized and generally accepted good engineering practices, industry standards, and applicable manufacturer recommendations, as required and discussed in 68.56(d).**

Anhydrous Ammonia Process:

- Written procedures have not been fully established and implemented in order to maintain the on-going integrity of the anhydrous ammonia process equipment. Additionally, there were no written procedures describing how the facility plans to correct deficiencies identified during an inspection and test. **The facility must ensure that written procedures are established and implemented to maintain the on-going integrity of ammonia process equipment, as required in 40 CFR 68.73(b). Additionally, written procedures must be established and implemented for correcting deficiencies in anhydrous ammonia equipment that are outside acceptable limits before further use, or correcting deficiencies in a safe and timely manner when necessary means are taken to assure safe operation, as required in 40 CFR 68.73(b) and discussed in 40 CFR 68.73(e).**
- There was no record of inspections / tests performed on the anhydrous ammonia flow meter, and the integrity of the anhydrous ammonia emergency shutdown valve (ESV). Additionally, an inspection schedule for the replacement of pressure safety valves has not been established. **The facility must establish an inspection and test schedule for all anhydrous ammonia equipment, and appropriately document all such tests, in accordance with recognized and generally accepted engineering practices, industry standards, manufacturer recommendations, and operating experience, as required by 40 CFR 68.73(d)(1), (2), (3), (4).**

**Pre-Startup Review [40 CFR 68.77]**

Anhydrous Ammonia Process:

- A Process Hazard Analysis (PHA) was not performed when the facility performed elements of a Pre-Startup Review prior to the startup of anhydrous ammonia process operations. **The facility must ensure that a PHA is performed and findings/recommendations resolved prior to the startup of new stationary sources, as required by 40 CFR 68.77(b)(3).**

**Registration [40 CFR 68.160] / Required Updates [40 CFR 68.195]**

- The RMP registration did not include the total contents of the denaturant tank (NFPA 4 flammable mixture). **The facility must update the RMP registration to reflect the maximum quantity of each regulated substance, as required in 68.160(b)(7).**
- The emergency contact, Mr. Gary Pokorski, was no longer employed by Western New York Energy in January 2008. The facility did not update the RMP within thirty days to reflect the new emergency contact person. **The facility must submit a correction to the RMP to reflect current emergency contact information, as required in 40 CFR 195(b).**